

C16 MIDI CONTROL UNIT

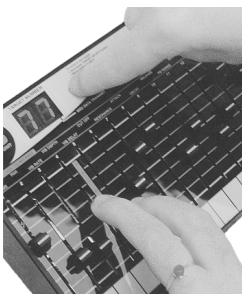
The high-tech music-making gear that most of us can afford gets ever more powerful. However, you may have a struggle accessing some of the fabulous features, because of limited or difficult user interfaces. The **Philip Rees C16 MIDI Control Unit** could help you get to grips with the hidden potential of your equipment.

Sixteen sliders

The **C16** gives you no less than sixteen slider controls, with respectable 60 mm travel. The sliders may be assigned to a wide variety of MIDI control functions.

The assignments are held as one hundred target presets, built-in to the **C16**. As the **C16** is a preset device you avoid the brain-ache of having to program it yourself, and you can quickly get stuck in to using it creatively. The large number of target presets means that is ready, out of the box, to do most of the jobs that you are likely to want it to do.

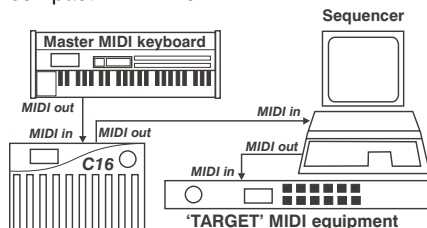
It is very easy to recall one of the target presets. First, you look up its number. Then, you hold down the **TARGET SELECT** pushbutton, while you move sliders 4 and 5 until the two-digit seven-segment LED display shows the correct target number.



You can use the sliders on the **C16** to control volume, pan, effects sends, and many other parameters of many popular electronic musical devices (old and new). The **C16** is preprogrammed with the MIDI Control Change, MIDI Parameter and MIDI System Exclusive codes for manipulating the sound on a wide range of popular synths, sound modules, sound cards and software.

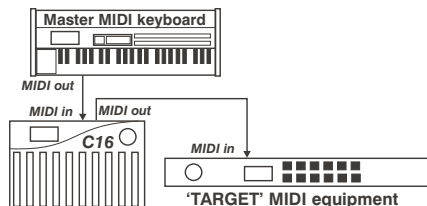
A complete list of target numbers and slider assignments, current at the time of going to press, may be found on the chart on the next page (overleaf or opposite).

The versatile **C16** can act as a hardware front panel for a synthesiser or as a compact MIDI mixer.



In a typical MIDI setup, you might place the **C16** between the MIDI OUT of your master keyboard and the MIDI IN of your sequencer (hardware or computer). In this way, your sequencer can record the movements of the sliders. This feature gives the user easy access to expressive effects such as trendy filter sweeps.

The **C16** automatically merges the MIDI data from the keyboard with that generated by moving the sliders. This means that you don't have to swap around MIDI cables, and you don't require an external merge unit. The diagram below indicates where you might place **C16** in a simpler setup, without a sequencer.

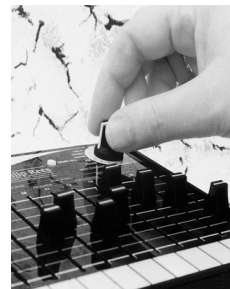


Downloadable target profiles

There is also the option of user-programming two target settings (target numbers 98 and 99), each consisting of sixteen sliders. You can transfer the settings for these thirty-two sliders to the **C16** via System Exclusive messages. These settings are held in non volatile-memory,

so the information is retained when power is removed from the **C16**. This feature means that, when used in conjunction with a computer, the **C16** could become a fully programmable MIDI control unit. It also means that, in the future, new profiles may be provided for existing users, for example, via our website.

A sixteen-position rotary switch is provided; it is usually used for selecting the MIDI channel, or sometimes the device number.



Target number 7 is called *Quick Mixer*, it provides easy access to volume, pan, reverb send, chorus send, variation effect send, balance and expression across sixteen MIDI channels simultaneously. The channel numbers correspond to the slider numbers. When this target is selected, the sixteen-position rotary control is used to change functions, so you can simply and rapidly switch between them.

Send All button

There is a **SEND ALL** pushbutton, which updates the target device with all the slider positions - you should use this with care! A lamp in the display window flashes to clearly indicate when MIDI data is transmitted by the **C16**. The lamp flashes for data being transferred from the MIDI in port, as well as that generated as a result of movement on the front panel controls of **C16** itself.

Space is provided on the hardy polyester front panel to name the slider assignments; a permanent overhead projector pen is a suitable marker.

The unit is compact at 210mm x 135mm x 55mm, so it doesn't take up too much space on a crowded work-surface. It has one MIDI IN and one MIDI OUT port.

The **C16** features a built-in power supply and is supplied with a detachable mains lead (ac power cord).



TARGET LIST and slider assignments

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	SWITCH
GS EDIT	VOL	PAN	VIB RATE	VIB DEP	VIB DEL	CUT OFF	RESON	ATTACK	DECAY	RELEASE	PB RING	MOD WH	PORTAM	REVERB	CHORUS	VARI FX	MIDI CH
GS EDIT	1 VOL	PAN	VIB RATE	VIB DEP	VIB DEL	CUT OFF	RESON	ATTACK	DECAY	RELEASE	PB RING	MOD WH	PORTAM	REVERB	CHORUS	VARI FX	MIDI CH
GS EFFECT	REV TYP	REV CHA	REV LFP	REV LEV	REV TIME	REV FB	REV PRE	CHR TYP	CHR LFP	CHR FRQ	CHR FB	CHR DLY	CHR SP	CHR DP	CHR-REV	---	DEV ID
XQ EQ	GAIN1	REV BAL	REV LFP	REV LFP	REV IDEL	REV Q2	REV LFP	CHR LFP	CHR BAL	CHR FRQ	CHR FB	CHR DEL	CHR SP	CHR DP	CHR HI	CHR-REV	DEV ID
TIMBRE	VOL	PAN	SC6	SC7	SC8	CUT OFF	RESON	ATTACK	---	RELEASE	PB RING	MOD WH	PORTAM	PB RING	MOD WH	VARI FX	MIDI CH
MIXER	Switch=1: Expression				Switch=2: Balance			1 & 2 Not marked on panel!									
	Switch=3: Volume		Switch=4: Pan		Switch=5: Reverb		Switch=6: Chorus		Switch=5: Variation F		Other Switch positions unused						See Left
M VOL	M VOL0	M VOL1	M VOL2	M VOL3	M VOL4	M VOL5	M VOL6	M VOL7	M VOL8	M VOL9	M VOL10	M VOL11	M VOL12	M VOL13	M VOL14	M VOL15	---
CC01	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	MOD WH	---
CHAN AT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	CAT	---
P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	P BEND	---
CC16	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	GEN PR1	---
CC17	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	GEN PR2	---
CC18	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	GEN PR3	---
CC19	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	GEN PR4	---
CC80	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	GEN PR5	---
CC81	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	GEN PR6	---
CC82	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	GEN PR7	---
CC83	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	GEN PR8	---
CC00	CC01	CC02	CC03	CC04	CC05	CC06	CC07	CC08	CC09	CC10	CC11	CC12	CC13	CC14	CC15	CC16	MIDI CH
CC16	CC17	CC18	CC19	CC20	CC21	CC22	CC23	CC24	CC25	CC26	CC27	CC28	CC29	CC30	CC31	CC32	MIDI CH
CC32	CC33	CC34	CC35	CC36	CC37	CC38	CC39	CC40	CC41	CC42	CC43	CC44	CC45	CC46	CC47	CC48	MIDI CH
CC48	CC49	CC50	CC51	CC52	CC53	CC54	CC55	CC56	CC57	CC58	CC59	CC60	CC61	CC62	CC63	CC64	MIDI CH
CC64	CC65	CC66	CC67	CC68	CC69	CC70	CC71	CC72	CC73	CC74	CC75	CC76	CC77	CC78	CC79	CC80	MIDI CH
CC80	CC81	CC82	CC83	CC84	CC85	CC86	CC87	CC88	CC89	CC90	CC91	CC92	CC93	CC94	CC95	CC96	MIDI CH
CC96	CC97	CC98	CC99	CC100	CC101	CC102	CC103	CC104	CC105	CC106	CC107	CC108	CC109	CC110	CC111	CC112	MIDI CH
CC112	CC113	CC114	CC115	CC116	CC117	CC118	CC119	CC120	CC121	CC122	CC123	CC124	CC125	CC126	CC127	CC128	MIDI CH
ALESIS1	PAN	PAN	LFO1 DP	LFO1 SP	CUTOFF	KEYB TR	LFO2 DP	LFO2 SP	FILT ATT	FILT DEC	FILT SUS	FILT REL	ATTACK	DECAY	SUSTAIN	RELEASE	---
ALESIS2	VOL	PAN	LFO1 DP	LFO1 SP	CUTOFF	KEYB TR	LFO2 DP	LFO2 SP	FILT ATT	FILT DEC	FILT SUS	FILT REL	ATTACK	DECAY	SUSTAIN	RELEASE	---
ALESIS3	VOL	PAN	LFO1 DP	LFO1 SP	CUTOFF	KEYB TR	LFO2 DP	LFO2 SP	FILT ATT	FILT DEC	FILT SUS	FILT REL	ATTACK	DECAY	SUSTAIN	RELEASE	---
ALESIS4	VOL	PAN	LFO1 DP	LFO1 SP	CUTOFF	KEYB TR	LFO2 DP	LFO2 SP	FILT ATT	FILT DEC	FILT SUS	FILT REL	ATTACK	DECAY	SUSTAIN	RELEASE	---
MTRX1000	DC01 FQ	DC01 WV	DC01 PW	DC02 FQ	DC02 WV	DC02 PW	ENV DEL	ENV ATT	ENV DEC	ENV SUS	ENV REL	VCF FM	PORTAM	FILT SP	LFO1 DP	LFO2 SP	---
MTRX1000	VCF DEL	VCF ATT	VCF DEC	VCF SUS	VCF REL	ENV DEL	ENV ATT	ENV DEC	ENV SUS	ENV REL	FILT FM	FILT DEL	FILT ATT	FILT DEC	FILT SUS	FILT REL	---
PROTEUS	ATT PRI	HLD PRI	DEC PRI	SUS PRI	REL PRI	VOL PRI	PAN PRI	CHR PRI	ATT AUX	LFO1 DP	DEC AUX	LFO2 DP	SUS AUX	VELO SN	ENV AUX	---	DEV ID
PROTEUS	ATT SEC	HLD SEC	DEC SEC	SUS SEC	REL SEC	VOL SEC	PAN SEC	CHR SEC	LFO1 SP	LFO1 DP	DEC AUX	LFO2 DP	SUS AUX	VELO SN	ENV AUX	---	DEV ID
ORBT/PHT	ATT PRI	HLD PRI	DEC PRI	SUS PRI	REL PRI	VOL PRI	PAN PRI	CHR PRI	ATT AUX	LFO1 DP	DEC AUX	LFO2 DP	SUS AUX	VELO SN	ENV AUX	---	DEV ID
ORBT/PHT	ATT SEC	HLD SEC	DEC SEC	SUS SEC	REL SEC	VOL SEC	PAN SEC	CHR SEC	LFO1 SP	LFO1 DP	DEC AUX	LFO2 DP	SUS AUX	VELO SN	ENV AUX	---	DEV ID
JV80 T1	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JV80 T2	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JV80 T3	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JV80 T4	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JX6P	DC01 RG	DC01 WV	DC01 TN	DC01 LFO	DC01 MIX	DC02 RG	DC02 WV	DC02 XMD	DC02 TN	DC02 FN	DC02 LFO	DC02 MIX	ENV2 AT	ENV1 DU	ENV1 SU	ENV1 RL	DEV ID
JX6P	HPF	VCF CUT	RESON	VCF LFO	VCF ENV	VCF KEY	VCF ENV	VCF SEN	VCF ENV	LFO WAV	LFO DEL	LFO RAT	CHORUS	ENV2 AT	ENV1 DU	ENV1 RL	DEV ID
JV1080 T1	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JV1080 T2	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JV1080 T3	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
JV1080 T4	LEVEL	LFO1 SP	LFO2 SP	PITC ENV	ATTACK	DECAY	SUSTAIN	RELEASE	CUT OFF	RESON	ENV DEP	KB TRAK	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
AJUNO	SUS OSC	NOISE	HPF	DC0 LFO	DC0 PW	VCF CUT	VCF RES	VCF LFO	VCF ENV	VCF KB	LFO SPD	LFO DEL	ATTACK	DECAY	SUSTAIN	RELEASE	DEV ID
MKS80 U	LFO SPD	LFO DEL	LFO WAV	LFO DEP	PW	PWM	X-MOD	X-M1 ENV	PWM MOD	VCO1 RG	VCO1 WV	SYNC	VCO2 RG	VCO2 FN	VCO2 WV	MIXER	DEV ID
MKS80 L	HPF	CUT OFF	RESON	VCF ENV	VCF LFO1	PWM	X-MOD	ENV1 DY	ENV1 AT	ENV1 DEC	ENV1 SU	ENV1 REL	ENV2 DY	ENV2 AT	ENV2 SU	ENV2 RL	DEV ID
MKS80 L	LFO SPD	LFO DEL	LFO WAV	LFO DEP	PW	PWM	X-MOD	X-M1 ENV	PWM MOD	VCO1 RG	VCO1 WV	SYNC	VCO2 RG	VCO2 FN	VCO2 WV	MIXER	DEV ID
MKS80 L	HPF	CUT OFF	RESON	VCF ENV	VCF LFO1	PWM	X-MOD	ENV1 DY	ENV1 AT	ENV1 DEC	ENV1 SU	ENV1 REL	ENV2 DY	ENV2 AT	ENV2 SU	ENV2 RL	DEV ID
Dx21	OP1 ATT	OP1 DE1	OP1 DE2	OP1 REL	OP1 SUS	OP1 KEY	OP1 LEV	OP1 FRQ	OP2 ATT	OP2 DE1	OP2 DE2	OP2 REL	OP2 SUS	OP2 KEY	OP2 LEV	OP2 FRQ	DEV ID
Dx21	OP3 ATT	OP3 DE1	OP3 DE2	OP3 REL	OP3 SUS	OP3 KEY	OP3 LEV	OP3 FRQ	OP4 ATT	OP4 DE1	OP4 DE2	OP4 REL	OP4 SUS	OP4 KEY	OP4 LEV	OP4 FRQ	DEV ID
SV85 MLT	LY1 VOL	LY2 VOL	LY3 VOL	LY4 VOL	LY1 PAN	LY2 PAN	LY3 PAN	LY4 PAN	AEG SL1	AEG SL2	AEG SL3	AEG SL4	FILTER	RESA	LFO SP	LFO DP	DEV ID
SV85	VOLUME	FXT SEND	RAND PIT	LFO SP	LFO DEL	LFO->PIT	LFO->AMP	LFO->FIL	VELO SEN	AMP T1	AMP T2	AMP T3	AMP T4	FILT L1	FILT L2	FILT L3	DEV ID
SV85	FILT BW	FILT CUT	MODE	RESON	FILT VELO	FILT T1	FILT T2	FILT T3	FILT T4	FILT T5	FILT L1	FILT L2	FILT L3	FILT L4	FILT L5	FILT L6	DEV ID
DxTX	ENV1 T1	ENV1 T2	ENV1 T3	ENV1 T4	ENV1 L1	ENV1 L2	ENV1 L3	ENV1 L4	ENV2 T1	ENV2 T2	ENV2 T3	ENV2 T4	ENV2 L1	ENV2 L2	ENV2 L3	ENV2 L4	DEV ID
DxTX	ENV3 T1	ENV3 T2	ENV3 T3	ENV3 T4	ENV3 L1	ENV3 L2	ENV3 L3	ENV3 L4	ENV4 T1	ENV4 T2	ENV4 T3	ENV4 T4	ENV4 L1	ENV4 L2	ENV4 L3	ENV4 L4	DEV ID
DxTX	ENV5 T1	ENV5 T2	ENV5 T3	ENV5 T4	ENV5 L1	ENV5 L2	ENV5 L3	ENV5 L4	ENV6 T1	ENV6 T2	ENV6 T3	ENV6 T4	ENV6 L1	ENV6 L2	ENV6 L3	ENV6 L4	DEV ID
DxTX	OP1 LEV	OP2 LEV	OP3 LEV	OP4 LEV	OP5 LEV	OP6 LEV	OP1 FRQ	OP2 FRQ	OP3 FRQ	OP4 FRQ	OP5 FRQ	OP6 FRQ	LFO SPD	LFO DEL	LFO PMD	LFO AMD	DEV ID
TG100	VOL1	PAN1	LFO1 SP	LFO1 DL	PMD1	AMD1	ATTACK1	RELEASE1	VOL2	PAN2	LFO2 SP	LFO2 DL	PMD2	AMD2	ATTACK2	RELEASE2	DEV ID
PULSE	OSC1 LV	OSC2 LV	OSC3 LV	NOISE	EXTERNAL	OSC1 PW	OSC2 PW	SYNC	OSC2 FTN	OSC3 FTN	LFO1 SP	LFO1 SH	ENV2 AT	ENV2 DEC	ENV2 SU	ENV2 RL	MIDI CH
PULSE	VOLUME	PAN	PORTAM	VCA SEN	VCF SEN	VCF CUT	RESON	VCF KB	VCF ENV1	VCF MOD	LFO2 SP	LFO2 DEL	ENV1 AT	ENV1 DC	ENV1 SU	ENV1 RL	MIDI CH
MICROW	OSC1 LV	OSC2 LV	RING MD	NOISE	OSC1 OCT	OSC1 SM	OSC2 OCT	OSC2 SM	DETUNE	SYNCF	LFO1 SP	LFO1 SH	ENV2 AT	ENV2 DC	ENV2 SU	ENV2 RL	MIDI CH
MICROW	VOLUME	PAN	PORTAM	VCA SEN	VCF SEN	CUT OFF1	RESON1	KEY1	ENV1 DEP	CUTOFF2	LFO2 SP	LFO2 DEL	ENV1 AT	ENV1 DC	ENV1 SU	ENV2 RL	MIDI CH
AWE32	LFO1 DEL	LFO1 SP	LFO2 DEL	LFO2 SP	ENV1 DL	ENV1 AT	ENV1 HL	ENV1 DC	ENV1 SU	ENV1 RL	ENV2 DL	ENV2 AT	ENV2 HL	ENV2 DC	ENV2 SU	ENV2 RL	MIDI CH
AWE32	MST TUN	LFO1->PT	LFO2->PT	ENV1->PT	LFO1->VL	CUT OFF	RESON	LFO1->FL	ENV1->FL	CHORUS	REVERB	VOLUME	PAN	MOD WH	PB RING	EXPRNS	MIDI CH
X3	OSC1 OC	OSC1 LV	INTERVL	PT EG DP	LFO1 SP	LFO1 DEL	LFO1 FD	LFO1 DP	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
X3	FX1 BAL	FX2 BAL	VDF CUT	VDF KB	VDF EG	VDFMG F	VDFMG D	VDFMG I	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
X3	OSC2 OC	OSC2 LV	DETUNE	PT EG DP	LFO2 SP	LFO1 DEL	LFO1 FD	LFO1 DP	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
X3	FX1 TYPE	FX2 TYPE	PT EG SL	PT EG AT	PB RING	PT EG SL	PT EG AT	PB RING	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
05R/W	OSC1 OC	OSC1 LV	INTERVL	PT EG DP	LFO1 SP	LFO1 DEL	LFO1 FD	LFO1 DP	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
05R/W	FX1 BAL	FX2 BAL	VDF CUT	VDF KB	VDF EG	VDFMG F	VDFMG D	VDFMG I	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
05R/W	OSC2 OC	OSC2 LV	DETUNE	PT EG DP	LFO2 SP	LFO1 DEL	LFO1 FD	LFO1 DP	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
05R/W	FX1 TYPE	FX2 TYPE	PT EG SL	PT EG AT	PB RING	PT EG SL	PT EG AT	PB RING	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
N55R	OSC1 OC	OSC1 LV	INTERVL	LFO1FQ	PT EG DP	LFO1FQ	LFO1FQ	LFO1FQ	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
N55R	PT EG DP	FLTR1	CUTFLTR KB	VDF1 EG	LFO1FQ	LFO1FQ	LFO1FQ	LFO1FQ	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
N55R	OSC2 OC	OSC2 LV	DETUNE	LFO2FQ	PT EG DP	LFO2FQ	LFO2FQ	LFO2FQ	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
N55R	PT EG DP	FLTR2	CUTFLTR KB	VDF2 EG	LFO2FQ	LFO2FQ	LFO2FQ	LFO2FQ	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
N17N5	OSC1 OC	OSC1 LV	INTERVL	LFO1FQ	PT EG DP	LFO1FQ	LFO1FQ	LFO1FQ	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
N17N5	PT EG DP	FLTR1	CUTFLTR KB	VDF1 EG	LFO1FQ	LFO1FQ	LFO1FQ	LFO1FQ	VD1 SEN	VD1 AT	VD1 AL	VD1 DT	VD1 BP	VD1 ST	VD1 SL	VD1 RT	DEV ID
N17N5	OSC2 OC	OSC2 LV	DETUNE	LFO2FQ	PT EG DP	LFO2FQ	LFO2FQ	LFO2FQ	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
N17N5	PT EG DP	FLTR2	CUTFLTR KB	VDF2 EG	LFO2FQ	LFO2FQ	LFO2FQ	LFO2FQ	VD2 SEN	VD2 AT	VD2 AL	VD2 DT	VD2 BP	VD2 ST	VD2 SL	VD2 RT	DEV ID
DW8000	OSC1 OC	OSC1 WV	OSC1 LEV	OSC2 OC	OSC2 WV	OSC2 LEV	INTERVL	DETUNE	NOISE	VCF CUT	VCF RES	VCF KB	LFO FRQ	LFO DEL	LFO->PT	LFO->VCF	DEV ID
DW8000	VCF EG	VCF ATT	VCF DEC	VCF BRK	VCF SLP	VCF SUS	VCF REL	VCF SEN	VCA ATT	VCA DEC	VCA BRK	VCA SLP	VCA SUS	VCA REL	VCA SEN	PORTAM	DEV ID
KIT FLTR	KICK	RIM	SNARE1	CLAP	SNARE2	LO TOM1	CLD HH	LO TOM2	SEMI HH	MID TOM1	OPEN HH	MID TOM2	HI TOM1	CYMBAL	HI TOM2	RIDE	MIDI CH